

Piloting Web-based NAMCS Data Collection for Nurse-managed Centers

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INTRODUCTION

Research consistently has shown that Nurse Practitioners (NPs) provide health care equivalent to that of physicians, and especially excel in patient education and case management, essential interventions to promote self-care in chronically ill ambulatory patients. Yet large-scale national studies have not been done. Nurse-managed centers are not included in the sampling frame of the National Ambulatory Medical Care Survey (NAMCS) and only 2.1% of the 2000 sample was from patient encounters with NPs.¹ The aims of this pilot study were to create a web-based format for the NAMCS; to expand it by adding selected nursing diagnoses, interventions, and outcomes; and to pilot-test it with 300 patient encounters in 5 nurse-managed centers.

BACKGROUND

There are a growing number of nurse-managed centers; many began as academic nursing centers with federal funding to become labs for teaching advanced practice nurses. NPs working autonomously in these sites provide primary health care for predominantly underserved, vulnerable, minority populations. Meta-analyses of NP care show that NP interventions and outcomes are equivalent to or better than those of physicians.^{3,4} Measures in these studies included several that match the NAMCS: diagnostic investigations done, time spent with patient, advice on self-care, identification of physical abnormalities, early detection of disease, symptom relief, appropriate medications ordered, health promotion, referrals and consultations. Variables determined to be nursing-sensitive⁵ and ambulatory outcome variables⁶ could add much to a national survey that includes nurse-managed centers.

METHODS

Expansion of NAMCS. Variables selected for expansion of NAMCS had been shown in the literature to describe NP diagnoses or interventions. Also, based on recent Institute of Medicine priorities for action on quality, variables describing select ambulatory care outcomes were added.

Implementation of survey in Dialogix. Dialogix² has been used to implement two large, NIMH funded, epidemiological studies, and several smaller projects. The tool supports highly branched surveys and rapid analysis to analyze responses.

Following the investigators' expansion of the NAMCS survey questionnaire, a variety of data capture mechanisms were used in this pilot study, including drop-down menus, radio buttons, checklists, and text write-in. The Dialogix database for this study links the NAMCS code book to standardized terminology including LOINC, Home Health Care Classification, and SNOMED to store participant responses.

Data analysis. Data were analyzed using descriptive statistics, independent sample t-tests, and chi-square tests. Sites were compared with each other and with prior NAMCS data.

DISCUSSION

In order to fully inform policy-makers about the breadth of ambulatory care and the link between interventions and quality outcomes, it is important to expand the NAMCS. This pilot study tested a web-based method of collecting expanded NAMCS data that could be useful in a variety of ways. Providers may use the method for a quality audit, comparing their encounter characteristics to others. NPs may investigate to see their practice similarity to physician providers. Standardized terms support data transfer to repositories for patient billing, public health disease surveillance, and the like.

Acknowledgment

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References

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